

the conception of a single fundamental or primordial matter as the source of material diversity" (p. 46). Prof. Gomperz's comment is, "Here it may almost be said that inexperience was the mother of wisdom." We are inclined to agree with him, though possibly not quite in the sense in which the phrase is used. The scientific teaching of the school seems to have been best at its birth, and rapidly to have deteriorated. But while admitting and appreciating the author's wish to give credit to whatsoever things are true and of good report, difficulties and uncertainties must exist owing to the scarcity of original documents. We get the views of the great thinkers of antiquity filtered through the minds and coloured by the influence of a crowd of disciples, of collectors, of commentators. The author admits that the whole pre-Socratic philosophy is one vast field of ruins. The picture constructed from these scattered mosaic fragments may be very beautiful to look at, but it may not be the same picture that was originally drawn.

We should have liked to follow the author through each school in which he discovers the different tendencies of ancient thought or given some evidence of the discriminating appreciations that have accompanied some time-honoured name. One could linger long over the Eleatics, those pioneers of criticism who sought to rouse mankind from indolence of thought and the disposition to dogmatic slumber. For the paradoxes of Zeno we have always entertained a profound veneration, and the author is kind enough to stir these dry bones and make them live. Some of these he has clothed in a modern dress, but the difficulty does not lie in the dress, and the old problem connected with relative and absolute motion seems as elusive as ever. The tale of the arrow sped from the bow is put into this captious form: "Does an object move in the space in which it is, or in the space in which it is not?" And this seems as good a way as any to put the problem, which does not seem to have been clearly expressed in the original. Similarly with the old, old story of Achilles and the tortoise, to which we believed we could have given a satisfactory answer before reading the author's comments, but now entertain grave doubts. It is a difficult task to frame a paradox which cannot be exploded in less time than it takes to construct it, and the ingenuity of Zeno will be appreciated by those who have attempted to follow him on this thorny path.

The historians and the physicians or medical schools must also be passed over in silence, though it cannot be imagined that in a critical account of Herodotus, for example, there is not much to interest and perhaps something to qualify. The importance of the medical schools is insisted upon, since here exact observation supplied a much needed check to hasty generalisations, and many a forgotten name to whom accident has denied justice appears in this list of worthies, all contributing to build up science as we understand the term. A work of some 600 pages by a German author might be supposed by some to be a very dull work. This would certainly be an error. It is bright and lucid, free from pedantry, and occasionally epigrammatic. Prof. Gomperz promises us two more volumes; we have no doubt but that the interest will be equally well sustained, and we hope he may again meet as pleasant and competent a translator.

NO. 1658, VOL. 64]

MEDICAL AND SURGICAL EXPERIENCES IN THE SOUTH AFRICAN WAR.

A Civilian War Hospital; being an account of the work of the Portland Hospital, and of experience of wounds and sickness in South Africa, 1900, with a description of the equipment, cost and management of a civilian base hospital in time of war. By the Professional Staff. Pp. 343. (London: John Murray, 1901.)

THE Portland Hospital was a hospital organised and equipped by voluntary effort in this country for service in South Africa. It was the first of several similar hospitals sent out after the declaration of war in October 1899; but it was not the first voluntary hospital ever attached to a British Army at the front, as the authors suggest in their preface. One well-known hospital, for example, the hospital which is now the British Hospital at Port Said, was originally established as a voluntary hospital for the sick and wounded of the Egyptian Campaigns. The Portland Hospital, however, has the credit of being the first example in this country of a voluntary undertaking on behalf of the sick and wounded being placed entirely in the hands of the military medical authorities for organisation, equipment and management. Formerly the promoters of such undertakings preferred to act independently and, as a matter of fact, to run counter to official medical authority, believing that their usefulness would be in proportion to the extent to which they could over-ride the restrictions imposed by military discipline and control. Continental nations have long ago recognised the folly of this conception, and the Portland Hospital has the merit of having led the way in this country towards a loyal recognition of the necessity of voluntary aid in war becoming an integral part of the military medical organisation. The dedication of the volume to the Principal Medical Officer of the Field Force and to the Officers of the Military Hospital, to which the Portland Hospital was attached, indicates the success of this more modern conception of the value of voluntary aid in war.

The Portland Hospital may, indeed, be regarded as civilian only in name and in the fact that its professional staff consisted of Mr. Anthony Bowlby, Dr. Howard Tooth, Mr. Cuthbert Wallace and Mr. J. E. Calverley, and that the cost of its equipment and maintenance was defrayed from private sources. In other respects it was a distinctly military organisation under an Army medical officer, Surgeon-Major Kilkelly of the Grenadier Guards, and was, in fact, a fifth section of the military establishment known as a general hospital at the base.

The gentlemen named are the authors of this volume, and they have achieved their task admirably. The opening chapters and several voluminous appendices form about one-third of the book and describe the personnel, equipment and interior economy of the hospital. It can scarcely be said that they open up fresh ground or present new facts for consideration. The remaining chapters contain an excellent and valuable record of the medical and surgical work done in the wards of the hospital or in the wards of other hospitals to which the staff of the Portland Hospital had access.

The medical work is recorded in two chapters by Dr. Tooth and Mr. Calverley. The first and more important

of these chapters contains an account of the authors' experience of enteric fever and simple continued fever in South Africa. But most of the scientific interest attached to this subject has already been exhausted in a paper by Dr. Tooth which was read and discussed quite recently before the Clinical Society of London, and the chapter is more or less a repetition of that paper. Some interest, however, will be felt in the attitude of the authors towards "simple continued fever," which they express in the statement that a diagnosis of simple continued fever "is little more than a confession of ignorance," but "must be tolerated in the absence of more exact knowledge." In their experience, all such cases were cases of exhaustion, diarrhœa, dysentery, insolation or true enteric fever, and they consider that a medical officer assumes a rather dangerous position in diagnosing a case as "simple continued fever" simply because he does not know what the fever is and does not think it is enteric. All thoughtful physicians will readily acknowledge that there is a general lack of exact knowledge regarding fevers of this kind. In military medical practice these fevers are extremely numerous and seldom fatal, and the term "*febricula*," which was included in former editions of the "Nomenclature of Diseases," issued by the Royal College of Physicians, best indicated the type of fever described and was a less confusing term to use for what was, after all, a symptom rather than a definite disease and for what must necessarily be a provisional rather than a positive diagnosis. It is evident, however, that, in the authors' experience, a large number of these cases were considered to be mild forms of enteric fever. The Board of Medical Officers appointed to inquire into the outbreak of enteric fever in the camps of the United States Army in 1898 came to a similar conclusion; and, if it becomes the fashion to record this type of fever as enteric fever instead of as simple continued fever, we must be prepared for some remarkable variations, statistically, in the incidence and case mortality of the former disease.

The second chapter on medical subjects deals with diarrhœa, dysentery, sunstroke, diseases due to exposure, functional diseases and mental disturbances as experienced in war. It will repay perusal, but can scarcely be described as important. The facts are commonly known and have frequently been described in the medical histories of campaigns. It may, however, be interesting to note that the authors consider diarrhœa and dysentery to be synonymous. "Dysentery," they say, "is diarrhœa 'writ large,' or, in other words, the two have a common origin." Their reasons for adopting this opinion are not convincing. In fact, no reasons are given other than some vague theories and speculations regarding the probable cause of the well-known diarrhœa of campaigns.

The best feature of the volume from a scientific standpoint is the record of surgical work; and the chapters on this subject, to which nearly one-half of the book is devoted, will cause it to take a high and important place in the literature of military surgery. They are written by Mr. Bowlby and Mr. Cuthbert Wallace, and are characterised, pre-eminently, by thoughtful and careful observation of fact.

Hitherto our scientific knowledge of the effects of modern fire-arms has been dependent on experiments, notably those of Prof. Bruns of Tübingen. Mr. Bowlby and Mr. Wallace have at once lifted us from the sphere of experiment into that of actual facts by a series of observations the accuracy and completeness of which are forcibly impressed upon the reader. Briefly, their facts may be regarded as confirming the observations and conclusions of the experimentalists. They had opportunities of observing side by side wounds made by the Mauser and old Martini rifles, both of which were used by the Boers. The modern "perfect" bullet, the bullet with hard mantle and small calibre, causes less shock, both local and general, than the old bullet, and the risk of sepsis is diminished. But the high velocity of the former at short ranges is disastrous and is the cause of the so-called "explosive" effect. The authors' explanation of this is that the energy of the bullet is transmitted to the tissues, and they base this explanation on the symptoms and after-effects of wounds observed by them in which the injury was not confined to the immediate track of the bullet. The tissues beyond were found to be profoundly injured, and these widely-spread effects were largely in proportion to the velocity of the projectile. Thus, in the brain the passage of a bullet at close range is found to result in the disintegration of almost all the cerebral mass, while a certain proportion of patients shot through the brain at extreme ranges made satisfactory recoveries. In bones, too, the effect of high velocity at short ranges is to produce very extensive splintering and pulverisation, whilst at long ranges cancellous bone may be simply perforated and compact bone fractured with but little comminution. These observations completely confirm Bruns' experiments, and they will be quoted as essential facts in future text-books on military surgery.

As regards another well-known phenomenon, fragmentation and alteration in the shape of bullets, the authors' observations lead them to believe that this does not occur, in the case of hard mantled bullets, except as a result of ricochet and impact with hard substances outside the body, a probable explanation which has been overlooked in some recent continental works on the effect of modern fire-arms. Another important observation is that soft-nosed or "sporting" bullets do not "set up" on impact with soft tissues, and only when they hit hard bone. Sportsmen will be inclined to disagree with this, but the authors point out that the hide of big game is compact enough to cause "setting up" of a soft-nosed bullet, whereas the human skin is not.

These are only a few of many interesting and important observations made in the chapters on the surgical work of the hospital. In pages devoted to bullet wounds of blood-vessels, nerves, joints, head and abdomen there are points of special interest and value, which throw a flood of light on many questions connected with the surgical work of modern wars, and which every surgeon, certainly every military surgeon, should study.

The volume is profusely illustrated by photographs, including some skiagraphs, which add greatly to the interest and value of the book. It also contains a useful index.

W. G. M.